



## Jamieson T. Olsen Engineering Note

**Date:** 16 February 2001

**Rev Date:** 16 February 2001

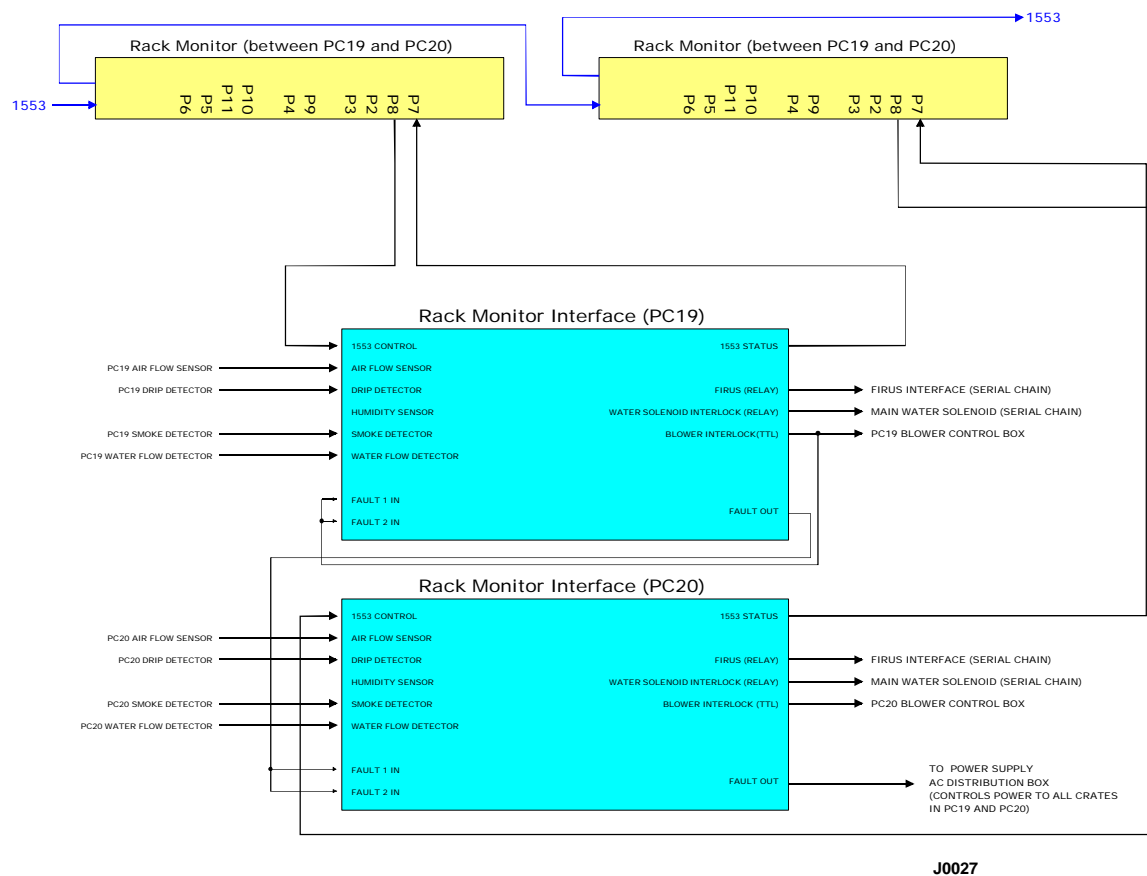
**Project:** DFE/SEQ Power supplies

**Doc. No:** 2001-02-16b

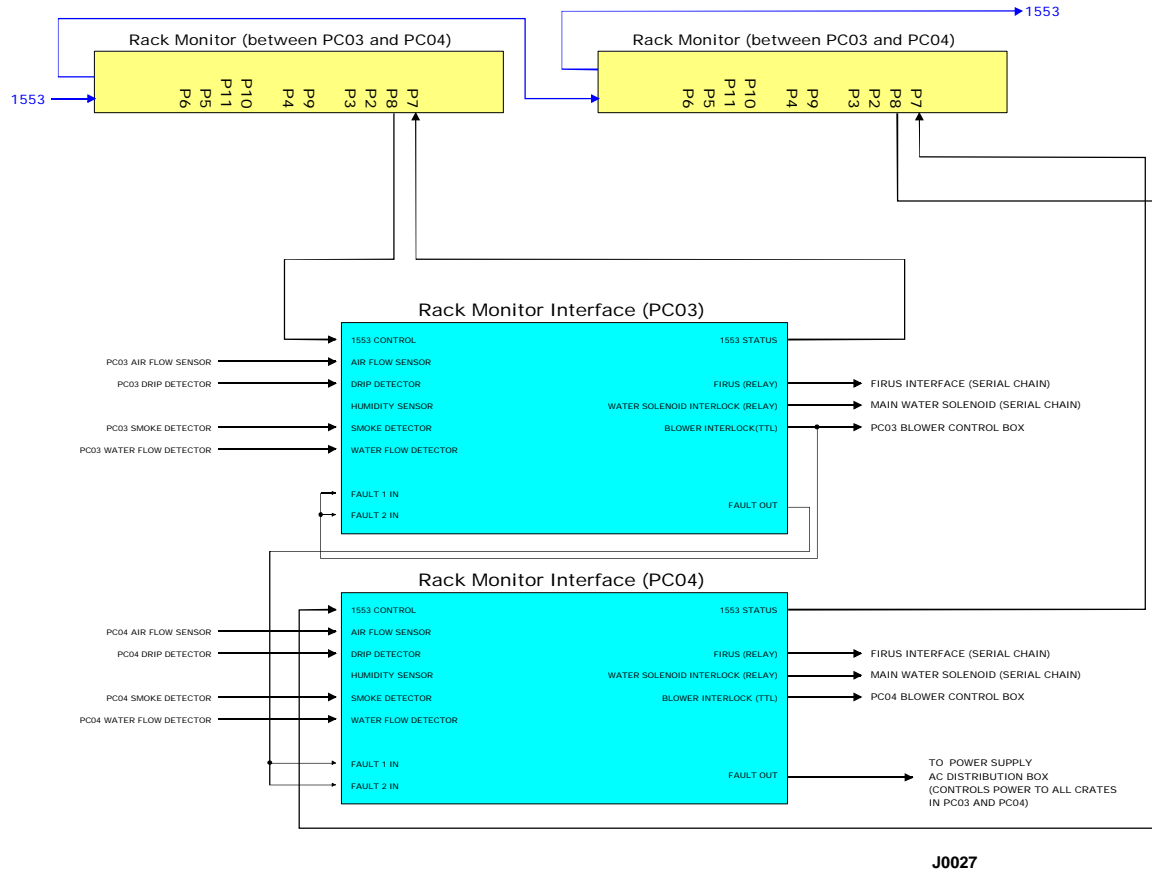
**Subject:** DFE and SEQ Rack Monitoring and Interlocks for Center Platform

The DFE and SEQ crates located on the center platform racks PC03, PC04, PC19 and PC20 must be continuously monitored for smoke, water flow, water leaks, and air flow. This is accomplished using Rack Monitors (RM) and Rack Monitor Interface (RMI) boxes in each rack.

Since there is no extra room in these center racks, the 1U high RM units are bolted in between the PC19/PC20 and PC03/PC04. Each rack has its own RMI. The hookup diagram for PC19/PC20 is shown below:



PC03/PC04 monitoring is shown below:



## Notes:

1. If the FAULT output goes low, it shuts down the AC power to the power supply chassis. This kills all power to all crates in PC19/PC20 or PC03/PC04.
2. FIRUS outputs are tied together with other RMIs located on the same side (North or South) of the platform. The outputs are terminals connected to normally open contacts on a relay inside the RMI. If the RMI detects water dripping, smoke, or power failure these contacts will close.
3. Main Water Solenoid outputs are tied together with other RMIs located on the same side (North or South) of the platform. The Solenoid relay connection is used, meaning that if water is detected in a drip sensor the RMI will open these contacts – closing the Main Water Solenoid and shutting down water flow to one whole side of the center platform.
4. If an RMI detects smoke, it will shut down the blower fan in that rack ONLY.